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Order Instituting Rulemaking to consider policy and implementation refinements to the Energy Storage Procurement Framework and Design Program (D.13-10-040, D.14-10-045) and related Action Plan of the California Energy Storage Roadmap.	Rulemaking 15-03-011 (Filed March 26, 2015)

OPENING COMMENTS OF THE OFFICE OF RATEPAYER ADVOCATES TO TRACK 1

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I. INTRODUCTION

Pursuant to the Assigned Commissioner and Administrative Law Judges' Scoping Memo and Ruling Seeking Party Comments issued on June 12, 2015, set forth in the *Order Instituting Rulemaking to consider policy and implementation refinements to the Energy Storage Procurement Framework and Design Program (D.13-10-040, D.14-10-045) and related Action Plan of the California Energy Storage Roadmap* ("OIR") in Rulemaking ("R.") 15-03-011, the Office of Ratepayer Advocates ("ORA") hereby submits these comments to address the issues for Track 1 of this OIR.

In summary, ORA recommends that:

1. The Commission should ensure the Investor Owned Utilities ("IOUs") use a valuation methodology that clearly demonstrates the energy storage guiding principles and captures the true benefits and costs of energy storage;
2. The Consistent Evaluation Protocol ("CEP") should clearly define its qualitative and quantitative requirements to ensure consistency across IOUs and include greenhouse gas ("GHG") emission reduction benefits derived from the adoption of energy storage facilities;
3. In determining the degree of flexibility of storage targets between grid domains,[1] the Commission should balance the advantages and costs of greater flexibility;
4. The Commission should apply consistent, technology-specific safety standards across all IOUs, consider how utilities will meet and demonstrate compliance with safety standards, and ensure the process of reporting and monitoring safety standard compliance is transparent and consistent across all utilities;
5. A Load Serving Entities ("LSE") should receive credit toward its storage target if a customer it serves either uses Self-Generation Incentive Program ("SGIP") funding to deploy or who voluntarily deploys an energy storage system within its service territory;

[1] A grid domain is a "point of gird interconnection" (transmission-connected, distribution-connected, or customer-side). D.13-10-040, p. 15.

6. The Commission should consider above-market costs and expected levels of customer attrition and new customer growth before extending the application of the Power Charge Indifference Adjustment ("PCIA") and should wait until the Joint IOU Protocol is filed until it addresses any proposed changes to the PCIA cost recovery mechanism; and,
7. Energy Division should include the California Independent System Operator's ("CAISO") Energy Storage and Distributed Energy Resources Participation Stakeholder Initiative along with several other proceedings in its procedure and initiative matrix.

II. BACKGROUND

On March 26, 2015 the Commission issued R.15-03-011. This OIR seeks to further address the statutory requirements of Assembly Bill ("AB") 2514,[2] to refine policy and program details as required or recommended by Decisions ("D.") 13-10-040 and D.14.10-045, and seeks to address the Commission's high priority action items identified in the California Energy Storage Roadmap.

Pursuant to AB 2514, the Commission issued two energy storage decisions, D.12-08-016 and D.13-10-040, which developed frameworks for analyzing storage needs and procurement and created an energy storage design program. Specifically, D.12-08-016 adopted the Final Energy Storage Framework Staff Proposal that detailed a framework and plan for developing energy storage policies and guidelines.[3] D.13-10-040 directed San Diego Gas & Electric Company ("SDG&E"), Pacific Gas and Electric Company ("PG&E"), and Southern California Edison Company ("SCE") to procure a minimum total of 1,325 megawatts ("MW") of energy storage in four biennial solicitations through 2020.[4] The decision also directed Community Choice Aggregators

[2] Stats 2010, ch 469.

[3] D.12-08-016, Ordering Paragraph ("OP") 1, p. 32.

[4] D.13-10-040, p. 22 and Appendix A, p. 15.

("CCAs") and Energy Service Providers ("ESPs") to procure storage to meet one percent of their peak load by 2020.[5]

On June 12, 2015, Commissioner Carla Peterman and Administrative Law Judges Julie Halligan and Melissa Semcer issued the Assigned Commissioner and Administrative Law Judges' Scoping Memo and Ruling Seeking Party Comments ("Scoping Memo"), setting forth the procedural schedule and directing parties to file comments on the issues listed under Track 1. The issues to be addressed in comments to Track 1 include: procurement best practices; refinement of the CEP; flexibility of energy procurement targets between grid domains; eligibility of new, not previously discussed, energy storage technologies; safety standards; energy storage target tracking for CCAs and ESPs; cost recovery; and coordination across proceedings and agencies.

III. ORA'S RECOMMENDATIONS

The Scoping Memo requests parties to file comments on the questions identified under Track 1. ORA comments on the following issues: procurement best practice, the CEP, flexibility of energy procurement targets between grid domains; safety standards; storage target tracking; the PCIA; and coordination across proceedings and agencies.

A. Issue 1: Procurement Best Practices

1. Issue 1(c): What changes, if any, should be made to the energy storage specific Request for Offers ("RFO") process in advance of the second biennial RFOs?

The Commission should consider in its upcoming Procurement Best Practices workshop how utilities should value the multidimensional characteristics of a storage system that is not currently operating as a dual-use facility, but may be monetized to do so in the future. In addition, valuation methodologies should also clearly demonstrate the energy storage guiding principles while capturing the benefits and costs of energy storage. Specifically, utilities should not only consider GHG emission costs, if applicable, but also the ability of the storage system to reduce GHG emissions. Utilities

[5] Id., OP 5, p. 77.

should include a GHG emission reduction adder that nets emission costs with expected emission reductions attributed to the particular storage project. Since energy storage may have a large effect on GHG emissions and the California energy system in the future, metrics such as a GHG emission reduction adder or other measures will be needed to quantify that effect.

B. Issue 2: Refinement of CEP

D.14-10-045 approved the IOUs' Joint CEP, which is a reporting and benchmarking tool that enables a consistent comparison across IOUs, bids, and use-cases.[6] The Scoping Memo seeks input from parties on how the CEP can better conform to the Commission's adopted energy storage guiding principles, which are grid optimization, integration of renewable energy, and reduction of greenhouse gases emissions to 80 percent below 1990 levels by 2050.[7] Generally, the CEP should clearly define its qualitative and quantitative requirements to ensure consistency. For instance, the CEP should state what network upgrade costs are derived from (e.g. estimates or interconnection studies). Also, considering that IOUs weigh risks of debt equivalence differently— the CEP should clearly define whether the levelized debt equivalence cost includes mitigation actions taken by an IOU.

In addition, to reflect California's GHG emission reduction goals, ORA recommends the CEP also include GHG emission reductions derived from the adoption of energy storage facilities.[8] Considering energy storage systems' potential to meet and the Commission's role in achieving California's climate goals, ORA recommends this rulemaking consider including a GHG emission reduction adder in the CEP, which represents the amount of GHG emissions reductions achieved through energy storage deployment. In doing so, the Commission and interested parties can better evaluate the

[6] D.14-10-045, p. 65.

[7] Scoping Memo, p. 4.

[8] Currently, the CEP requires IOUs to include levelized GHG compliance costs for technologies that generate GHG emissions, but not GHG emission reduction values. CEP for Energy Storage Benchmarking and General Reporting Purposes, Revised December 1, 2014, p. 9.

cost-effectiveness of incorporating energy storage into California's GHG emission reduction policy.

C. Issue 3: Flexibility of Energy Storage Targets Between Grid Domains

In determining the flexibility of storage targets between grid domains,[9] the Commission should consider the extent to which greater flexibility: 1) may crowd out particular domains, 2) could improve the ability of IOUs to optimize the grid, 3) could increase or decrease costs to ratepayers, and 4) would be unnecessary if rules and regulations are adopted to facilitate the deployment of dual-use energy storage resources.

While considering greater flexibility between storage grid domains, the Commission should balance the ability for IOUs to optimize the grid with the possibility that market incentives may lead an IOU to procure particular grid-located storage over another. Market incentives may lead IOUs to only procure storage connected to a particular grid domain over others if IOUs realize greater benefits from that particular domain. For instance, if a certain grid domain, such as transmission-connected, has the ability to receive higher revenues through the energy market, could this deter procurement of customer-side storage, regardless of system need, to the detriment of ratepayers? In addition, the Commission should consider the extent customer programs—such as demand response and permanent load shifting—are sufficient to ensure that IOUs are also exploring customer-side storage.

The Commission should also consider the ratepayer impacts that increasing flexibility could have in terms of short term and long term costs. Keeping the cost differences between customer-side and in front of the meter energy storage in mind, flexibility of targets between grid domains could be advantageous in terms of lower costs to ratepayers. Conversely, stimulating and developing the market for cost-effective customer-side storage may lead to lower ratepayer costs in the long run. Therefore, the

[9] IOUs are required to procure 700 MW of transmission-connected storage, 425 MW of distribution-connected storage, and 200 MW of customer-side storage. D.13-10-040, p. 15. Within these grid domains, IOUs are only allowed to shift 80 percent of MW between transmission and distribution-connected storage. D.13-10-040, p. 39.

Commission should balance these short term and long term consequences alongside the statutory requirement that energy storage procurement be cost-effective[10] when the Commission considers expanding target grid domain flexibility.

Lastly, the Commission should consider the necessity of different domain targets if IOUs are procuring dual-use[11] storage systems. If dual-use energy storage can serve as both a transmission and distribution asset or provide customer load management and bid into the energy market, domain targets may be unnecessary or act as additional hurdles to procuring cost-effective energy storage.

D. Issue 5: Safety Standards

In its review of safety standards and monitoring, the Commission should apply consistent, technology-specific safety standards that address energy storage components, storage systems, installation, operation and maintenance, and incident response across all IOUs. By requiring consistent standards, the Commission can more easily monitor reporting and compliance with safety standards. In addition, the Commission should not only consider applicable standards and monitoring of safety standards, but also consider how IOUs will demonstrate compliance and ensure the process of reporting and monitoring compliance is transparent and consistent across all IOUs. The Commission could require IOUs to condition RFO bid eligibility on the RFO bidder's compliance with Commission approved safety standards. This requirement could be articulated in an IOU's storage RFO protocol issued to bidders. The Commission could also require IOUs to file yearly compliance reports and require the IOUs to maintain an online, publicly accessible database that include results from monitoring storage facilities under contract with the IOU.

[10] Public Utilities Code (Pub. Util. Code) Section 2836.6, "All procurement of energy storage systems by a [LSE] or local publicly owned electric utility shall be cost effective."

[11] For instance, if the energy storage system is used as both a transmission and distribution asset, then the system's function will be considered "dual-use."

E. Issue 6: Energy Storage Tracking for CCAs and ESPs

1. Issue 6(a): For "SGIP" funded projects deployed within a CCA or ESP's service territory, which entity, the IOU or the CCA/ESP, should receive credit for the project toward their respective storage procurement target?

If an SGIP funded energy storage project is deployed within an IOU or CCA/ESP's service territory, then the storage credit should attach to the LSE serving the customer who deployed the project. For instance, if a Marin Clean Energy customer, who is in PG&E's service territory, uses SGIP funding to deploy a storage project, then Marin Clean Energy should receive the credit rather the PG&E. This accounting method enables transparent accounting of credit without added layers of confusion.

2. Issue 6(b): Which entity, the CCA/ESP or the IOU (or a combination thereof) should receive credit for energy storage projects that are voluntarily deployed within the service territory of a CCA/ESP?

If a customer voluntarily deploys an energy storage system within the service territory of a CCA or ESP's territory in compliance with Pub. Util. Code § 2835,[12] then the voluntary deployment should count toward an LSE's procurement target. Furthermore, the credit should attach to the LSE serving the customer, since that LSE is paying for the services of the storage system (i.e., the energy or capacity rights of the system). Similar to the example provided above, if a customer in PG&E's service territory is served by PG&E and voluntarily deploys an energy storage system, then PG&E should receive the credit toward its storage procurement target.[13]

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[12] Pub. Util. Code § 2835 lays out the rules and requirements for qualifying energy storage systems and procurement.

[13] The Commission should also consider the possibility that a CCA/ESP customer may participate in an IOU event-based, demand response program. In that instance, it may be appropriate for the CCA/ESP and IOU to split the credit since the CCA/ESP is serving the customer, while the IOU is incentivizing the use of energy storage.

F. Issue 7: Cost Recovery/PCIA

1. Issue 7(a): Should the Commission approve extension of the PCIA to future solicitations? On what basis?

The PCIA applies to departing load customers of bundled services in order to recover the above-market stranded costs of generation resources for bundled service. The PCIA is triggered when energy storage systems are procured to meet generation or solely for energy market purposes, such as energy arbitrage or ancillary services. In these instances, the storage system costs are recovered through generation charges, and are therefore paid for by bundled customers and departing load via the PCIA if above market costs exist.[14]

The Commission approved the application of the PCIA mechanism in D.14-10-045 to recover above-market stranded costs associated with departing load for energy storage projects, subject to Commission approval. If the Commission wants to extend the application of the PCIA, the Commission should consider: 1) what actual above-market, stranded costs exist (are IOUs procuring energy storage for dual-use or for market only purposes and if so, what costs are incurred); 2) what are expected levels of customer attrition; and, 3) what are expected levels of new customer growth. The potential above-market, stranded costs would arise if the costs to procure energy storage are greater than market prices (which would be identified in the PCIA market bench price for energy storage) and bundled customers depart IOU service.

2. Issue 7(c): Can the Commission sufficiently address any proposed changes to the PCIA cost recovery mechanism in this proceeding prior to approval of the Joint IOU Protocol?[15]

The Commission cannot accurately or sufficiently address proposed changes to the PCIA cost recovery mechanism until the Joint IOU Protocol is filed because there is no

[14] D.14-10-045, p. 41.

[15] The Joint IOU Protocol will address the mechanics of the PCIA in terms of how it will be applied when dealing with non-generation resources. This will be submitted to the Commission when the IOUs submit their applications for storage contract approval at the end of 2015.

way to assess the proposed methodology for the market benchmark or the PCIA mechanism.

G. Issue 8: Coordination Across Proceedings and Agencies

ORA recommends that the Commission include, among others, in Energy Division's matrix the following relevant proceedings:

- R.14-08-013 (Distribution Resource Plan);
- R.13-09-011 (Demand Response);
- R.11-09-011 (Electric Tariff Rule 21);
- R.13-11-007 (Alternatively-Fueled Vehicles);[16]
- A.14-10-014 (SCE's Application for Approval of its Charge Ready and Market Education Programs);
- A.15-02-009 (PG&E's Application for Approval of its Electric Vehicle Infrastructure and Education Program);
- R.13-12-011 (Long-term Procurement Planning);
- R.14-10-010 (Resource Adequacy);
- R.15-02-020 (Renewables Portfolio Standard); and,
- R.14-07-002 (Net Energy Metering).

ORA also recommends that the Energy Division include the CAISO's Energy Storage and Distributed Energy Resources Participation Stakeholder Initiative in its matrix.

IV. CONCLUSION

ORA respectfully requests that the Commission adopt the recommendations identified above.

[16] R.13-11-007 is consolidated with A.14-04-014, SDG&E's Application for Approval of its Electric Vehicle-Grid Integration Pilot Program.

Respectfully submitted,

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